VANTAGE POINT

A Newsletter on Non-Traditional Security
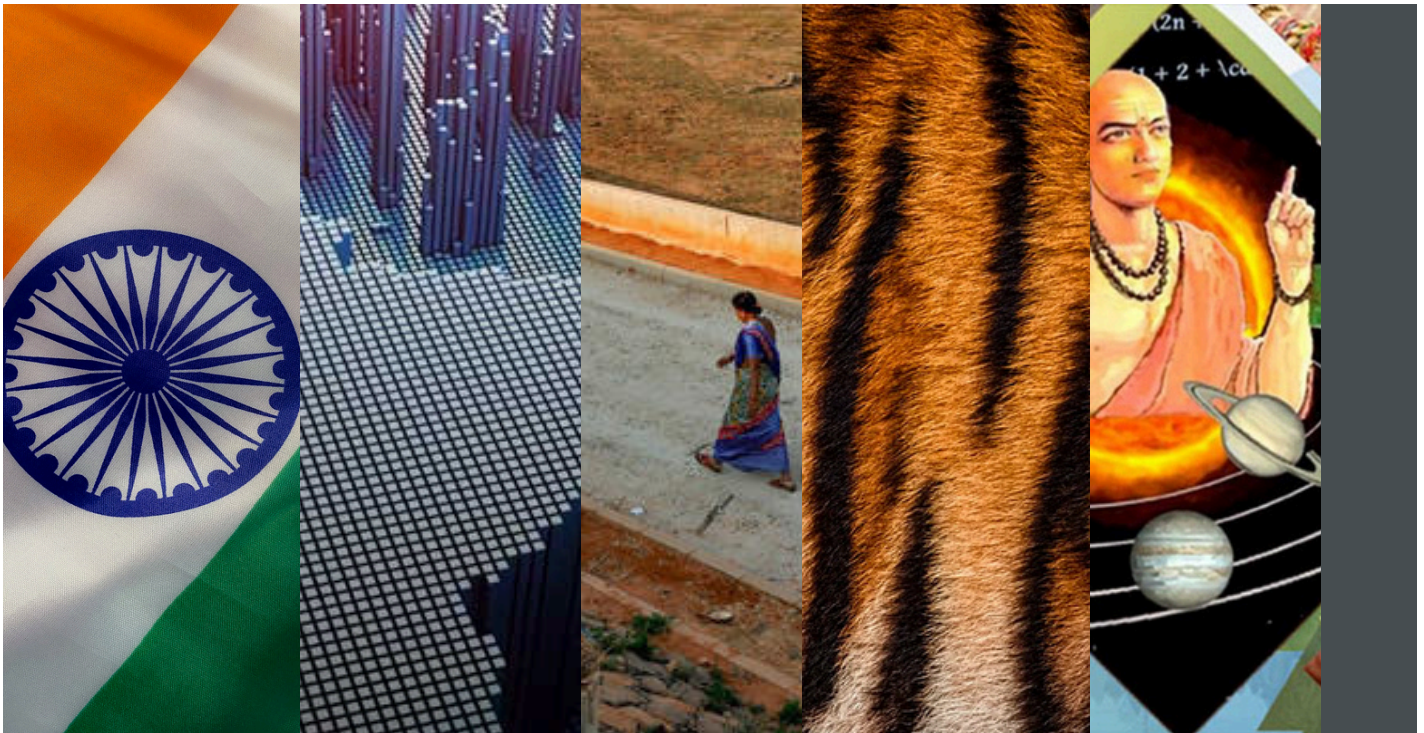
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ISSUE COMMENTARY

Non-traditional Security Threats - Digital Data Protection Debate

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The end of the Cold War led to a widening of security facets as the security discourses were incessantly changing that now are commonly referred to as Non-traditional Security Threats. In other words, the security agenda moved beyond military security as the core factor determining international security to include various social, economic and political aspects in the larger security paradigm. In policy terms, non-traditional security threats are simply understood as threats to the survival of states arising out of non-military sources such as climate change, migration, diseases, and cyber security, among others. Further, these non-traditional security threats require the policy-makers to look not only outwards but also inward with an approach to formulate and implement social, political, economic and most importantly digital reforms.

In this regard, the Digital Personal Data Protection Act (DPDA) 2023 and Digital Personal Data Protection (DPDP) Rules 2025 are efforts of the government in the right direction. According to an analysis by Surfshark (featured in the Hindu's write-up dated 26 February 2024), India is among

the top five countries in the world affected by data breaches with 5.23 million leaked accounts in 2023. Among the many digital platforms, LinkedIn witnessed the maximum breaches with emails being leaked and also personal accounts of people. This has led to a massive debate around new forms of threats, that is, non-traditional security threats in terms of data breaches. This leads to pertinent questions - What is privacy? Are we entitled to rights in digital spaces? Do we have a consent and privacy culture?

This problem identification led to the formulation of DPDPA 2023 and DPDP Rules 2025 to implement the former. These initiatives have brought to light a few important debates. Firstly, it is a hardly spoken fact that the right to privacy is a fundamental right of a citizen thereby implying that the Supreme Court in Justice K.S. Puttaswamy (Retd.) & Anr. vs. Union of India & Ors. (2017) case recognized that individuals have rights in digital spaces as well. Secondly, DPDP Rules 2025 is seen as an important consent-based policy framework with consent being the third most used word in the document.

India's Digital Personal Data Protection Act (DPDP)

However, a few key areas need discussions among government agencies, academia, industry and legal experts. Firstly, from a policy perspective, there is deliberate vagueness adopted as the policy-makers probably want to see the rolling out of these initiatives in space which is relatively new, that is, digital space.

Secondly, DPDP Rules mention the importance of seeking parental consent before processing a child's personal data on digital platforms. Here, policy-makers should take into consideration the difference in understanding of the word "child" in legal space and digital services. Most importantly, in Indian households, given digital literacy, parents in many instances are bound to give blind consent. Therefore, this ground reality must be taken into consideration in these initiatives before the implementation of the law.

In conclusion, the initiatives in digital data protection are the need of the hour and reflect that the techno-legal-policy framework is abreast of changing times. This also has led to increasing awareness about the importance of digital and privacy literacy in our society that is adopting technological advancements. However, the initiatives must consider a few nuances of our society before their full-fledged implementation.

NARRATIVES FROM THE NORTH-EAST

A Different Type of Trafficking in North-East: Wildlife at Risk

Written by **Pratyush Pran Sarma**

Apart from the prevalent trafficking of humans, arms and drugs in the North-Eastern Region (NER), the region has also seen the trafficking of exotic animals for their organs and unique body parts with enormous value at the black markets. Reports on wildlife trafficking shed light on the many instances that include exotic species such as the Burmese pythons across Myanmar to Mizoram for private zoos, One-horned Rhinoceros from Assam for their invaluable horns, Tigers, crocodile hatchlings, exotic bird species for illegal pet trade, among others.

Credit: WCT

Several multi-dimensional challenges arise out of this illegal activity. The first challenge is always for the subjects trafficked. Habitation changes and ecological imbalance in the region will harm the trafficked animals and ultimately the biodiversity that sustains the climate and vegetation.

The second challenge is a security concern. While wildlife trafficking incidents seem isolated, according to the 2020 study conducted by the Financial Action Task Force (FATF), wildlife trafficking and trade are intrinsically associated with money laundering, organised crime and funding for terrorist and insurgent groups. The presence of several insurgent groups, active and inactive, in the NER and their history of trafficking humans, arms and drugs to fund themselves completes the full circle of disruption and depletion in the region.

It is only recently that the focus of these poachers and traffickers has shifted to an exotic, invaluable mammal species – the Indian and Chinese Pangolin (Manis crassicaudata and Manis pentadactyla respectively). The precious pangolin scales are sold at high prices in the black markets, one pangolin catering to four months' worth of income (a rather vague estimate from a local conservation group in NER). The falsely assumed medicinal property of the scales and the meat being a luxury food item in South-East nations like Vietnam and China have continued the demand and their trafficking, despite their guaranteed protection under Schedule I of the Wildlife (Protection) Act of 1972 and 2022 in India and their acceptance as a "Critically Endangered" species on the IUCN Red List. Data cited by newspapers stands at 342 trafficking incidents involving more than 1,200 pangolins between 2018 and 2022.

Credit: WCT

Keeping in mind the consequences of increasing trafficking of wildlife species in a region, a few recommendations can be considered at this point. Firstly, through an effective task force, training and skill development, the protection of wildlife is to be considered as the first preventive measure for the issue. Secondly, as most of these poachers commit the crime for livelihood, their rehabilitation after surrender is another effective corrective and preventive measure, as can be seen in the case of the rehabilitation of insurgents. Thirdly, the empowerment of civil society organisations and preservationist groups can directly affect the local awareness of the masses and result in community participation in protection and preservation. The local resilience to such issues at the grassroots should be at the crux of wildlife preservation and anti-wildlife trafficking in India.

SECURITISING THE HUMAN

Bengaluru's Groundwater Emergency: Depleting Reserves and the Urgent Call for Action

Written by **Malka B**

Bengaluru is evidently facing a critical groundwater depletion crisis. According to the Central Groundwater Board report, the urban and rural districts of the city recorded a 100% extraction rate in 2024. This reflects that this city is consuming water at the rate at which it is replenished and ultimately, has no reserves left for future use. Bengaluru has been extracting nearly twice the amount of groundwater that it manages to recharge over the last decade, thus, making the system anything but sustainable. Data from Karnataka Groundwater Directorate have for a few years now classified Bengaluru's reserves as "over-exploited".

Rapid urbanization worsens this crisis by increasing impervious surfaces that prevent natural groundwater recharge and deplete existing reserves. Additionally, the uncontrollable drilling of borewells without proper structure and consideration of regulations all contribute to the strain on such water resources in Bengaluru.

There definitely is an over-extraction issue right now, and the consequences are evident across many taluks in Bengaluru. According to reports, the groundwater levels in Bengaluru South, Anekal, Bengaluru North, and Yelahanka have diminished over 4 meters below ground level compared to the previous year. In some areas, this means that the groundwater is now accessible only at a depth of 20-40 meters, while in others, like Hoskote, the possibility of obtaining access to it is only at 60-80 meters below ground level.

Experts emphasize the inescapable need for an immediate and holistic approach to water management. This means controlling the creation of new borewells, encouraging rainwater harvesting, reviving existing sources of water, and policies aimed at sustainable extraction of groundwater. The Karnataka Water Policy 2022 addresses this issue by bringing forth mechanisms of collecting excess flood water for subsequent use and focusing on rejuvenating the groundwater table. However, the implementation process is still questionable.

The crisis regarding Bengaluru's groundwater is multi-dimensional. The problem is attributed to an over-extraction rate, rapid urbanization, and the lack of proper water management practice. The crisis, therefore, should be treated with a collective response by the government authorities, as well as the community, who must heed to sustainable usage practices for the long-term utility of the groundwater resources.
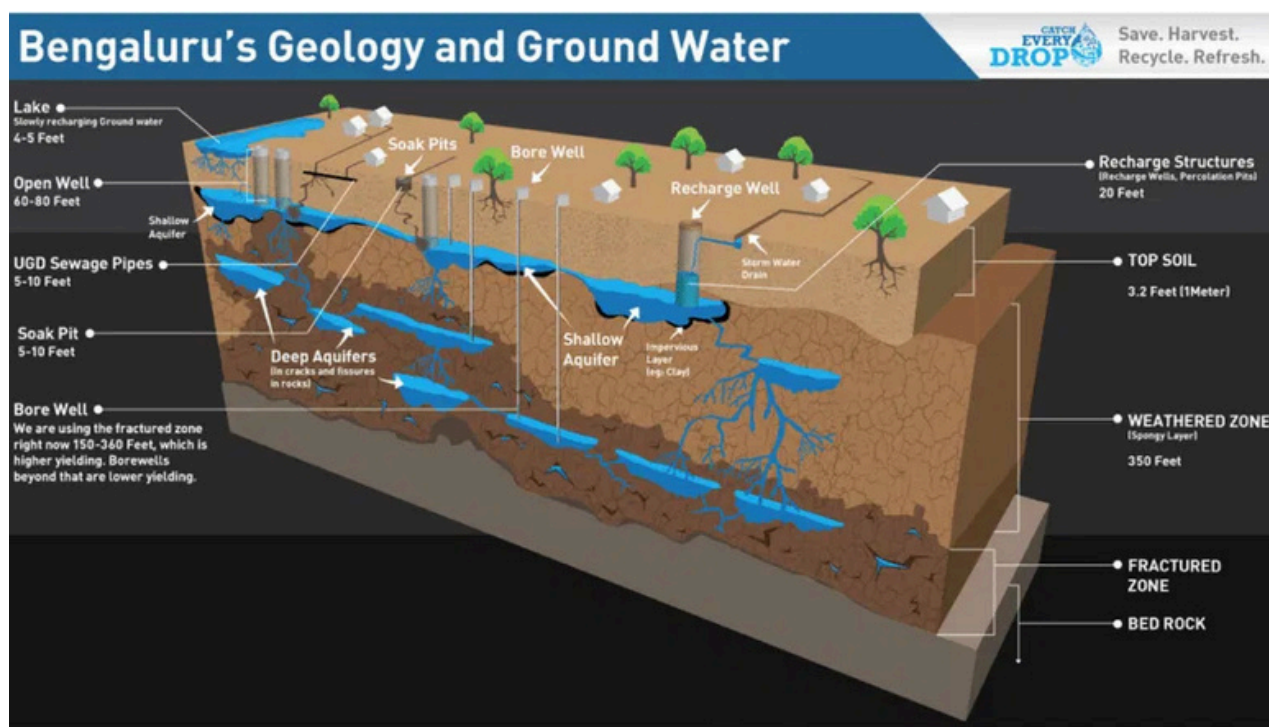
HUMAN SECURITY THROUGH EDUCATION

Indian Knowledge System – India's Intellectual Heritage

Written by **N Nithya Shree**

Apart from the crucial contributions of the Indian Knowledge System (IKS) to subjects like mathematics, astronomy, health sciences, and metallurgy, it also helps shape an Indian narrative of subjects and thoughts. The creation of indigenous knowledge along with the role of education in empowering human security also helps consolidate the nation's identity as a whole, amongst its people and in front of the world at large.

A study of ancient Indian history demonstrates the impact of ancient Indian scholars on the rest of the world. Just consider Aryabhata's invention of zero and how it fundamentally transformed mathematics, serving a critical function in contemporary algebra. And there is Sushruta, who is regarded as the father of surgery and handed down "Sushruta Samita," which contained surgical processes. Equally important was Charaka's Samhita, which featured essays that propped up understanding of health science for years to come. Other such pieces include Chaturanga, the game that led to modern chess, and Patanjali's Yoga Sutras that provided a modern approach towards physical and mental well-being alongside Shalihotra's Samhita, the very first book on veterinary medicine. All these different works showcase the depth of Indian philosophy.

Unfortunately, because of foreign invasions and colonial rule, exploitation of resources became the major focal point, and very little attention was given to the indigenous knowledge systems of India.

AICTE (All India Council for Technical Education) has taken steps towards creating an Indian Knowledge System (IKS) Division that promotes interdisciplinary research. Simultaneously, the Ministry of AYUSH (Ayurveda, Yoga, Unani, Siddha, Homeopathy) is working towards promoting its ancient healing practices internationally. Projects such as the Digital Library of India and the Bharatiya Bhasha Samiti will make sure that ancient books are available and preserved for the benefit of future generations.

With the use of contemporary science and technology booming, ancient India's advancements in these fields stand out due to a rich history of knowledge and the capacity of such knowledge in the consolidation of an Indian identity in the global politics. It also helps the nation in empowering its soft-power diplomacy with other nations, which is already dominated by the popularity of yoga abroad.

BORDER SECURITY

Strengthening India's Border Security Through Indigenous Technology

Written by **N.T. Malavika**

Border Security is an essential element of maintaining the state's sovereignty. With a fragile border situation where India can be considered a prime example, the securitisation of its borders comes with stress on human lives, both the guards and the guarded. The digitalisation of borders to reduce stress came with further issues of reliability on foreign technology and intelligentsia. Keeping in mind the current efforts of the Government in creating indigenous technology, the self-reliance of Indians for securing their own borders starts with skill development and securing humans in all of the Indian frontiers.

Dr. A.P.J. Abdul Kalam's dream of reducing reliance on foreign innovations is essential for India's border security. While advanced technologies can enhance threat detection, dependence on foreign vendors invites risks of data breaches and loss of sovereignty. Therefore, to mitigate these threats, India must contribute towards indigenous-technology development through initiatives like 'Make-in-India,' to ensure national control over critical infrastructure.

A transition towards a digitised border defence system is important as of now. Technological innovations like computer vision, detection algorithms, automated drones, robotic mules, and automated weapon systems can develop the quality of security. Therefore, integrating these technologies into a centralized situational awareness centre will help in the betterment of decision-making efficiency and strengthen border management.

Investing in local research and development is essential for producing homegrown solutions which are custom-made to India's security needs. Increased funding in these areas will help accelerate technological advancements and eventually reduce our dependence on foreign suppliers. Therefore, only a strong domestic R&D ecosystem will be able to ensure continuous innovation in border security solutions.

Public-private collaboration of companies can enhance security infrastructure in the future. This proves that encouraging partnerships between defence agencies and private firms will entirely help in developing and deploying advanced surveillance tools efficiently. Collaborations like such can bridge the gap between innovation and real-world application, hence ensuring faster adoption of modern technologies. Artificial intelligence and machine learning can contribute to improving real-time risk assessment. As AI-driven analytics can process vast amounts of data, this will enable security forces to detect potential threats faster and respond effectively. Hence, predictive analytics can further enhance decision-making and operational efficiency. The deployment of autonomous patrol systems, such as robotic patrol units and AI-controlled drones, can help in improving surveillance in the remote terrains of India. These systems efficiently ensure continuous monitoring without risking human lives, making sure both are different when it comes to border security more effective.

Strengthening cybersecurity measures in our country which lacks an efficient number of cybercrime courts is equally important. As digitalization is increasing, robust data protection protocols will be crucial to prevent cyber threats and secure classified information. By adopting these improvements, India can establish a self-reliant and technologically advanced border security framework, ensuring national sovereignty and safety.

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